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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,305	03/10/2004	Leo Cooney	67,313-020	4434

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EXAMINER

LESLIE, MICHAEL S

ART UNIT PAPER NUMBER

3745

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/797,305

Applicant(s)

COONEY, LEO

Examiner

Michael Leslie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9, 11, 12, 15-20 and 22-24 is/are rejected.
- 7) ☒ Claim(s) 7, 10, 13, 14, 21, 25 and 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/26/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the fluid cylinder defining “a plurality of apertures” (claims 7, 10, and 21) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "said plurality of apertures" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. Claim 18, from which claim 19 depends, only calls for "an aperture", thus it is unclear how there can be a "said plurality of apertures" equally spaced along the first outer annular wall.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8, 11, 12, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooney (5048397) in view of Desai et al (6467391).

Cooney teaches a brake pressure intensifying apparatus a fluid cylinder (40) axially extending between an inlet end (44) and an outlet end (46), and a piston assembly (52) disposed in the fluid cylinder for regulating fluid flow between the inlet end and the outlet end and including a first piston (54) having a first forward end (not numbered) adjacent the inlet end and a first outer annular wall (not numbered) extending from the first forward end. The piston assembly is located in a cylindrical chamber (42) defined by the fluid cylinder, the fluid cylinder

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includes a first end wall (48), being a plug, near the inlet end and a second end wall (50) near the outlet end, and the outer annular wall extends from a cylindrical outer surface () of the piston. The piston assembly includes an inner piston (56) disposed within the first piston and a glide ring (108) disposed between the first piston and the fluid cylinder, the inner piston defines a flow passage (62) for communicating fluid between the inlet and outlet ends, and a valve member (66) is disposed in the flow passage. Cooney does not teach that the apparatus includes at least one aperture defined by one of the fluid cylinder and the first outer annular wall.

Desai et al teach a piston (161) having an outer annular wall (164) defining a plurality of apertures (168) equally spaced along the wall for allowing better fluid flow to the central portion of the piston and to prevent the piston from sticking to its stop surface or cylinder end wall.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the outer annular wall of Cooney to include at least one aperture wherein a plurality of apertures are evenly spaced around the wall as taught by Desai et al for the purpose of improving fluid flow and reducing the tendency of the piston to stick to the end wall.

Claims 1, 4-6, 9, 11, 12, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooney in view of Jansson (3010282).

Cooney teaches a brake pressure intensifying apparatus a fluid cylinder (40) axially extending between an inlet end (44) and an outlet end (46), and a piston assembly (52) disposed in the fluid cylinder for regulating fluid flow between the inlet end and the outlet end and including a first piston (54) having a first forward end (not numbered) adjacent the inlet end and a first outer annular wall (not numbered) extending from the first forward end. The piston

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assembly is located in a cylindrical chamber (42) defined by the fluid cylinder, the fluid cylinder includes a first end wall (48), being a plug, near the inlet end and a second end wall (50) near the outlet end, and the outer annular wall extends from a cylindrical outer surface () of the piston. The piston assembly includes an inner piston (56) disposed within the first piston and a glide ring (108) disposed between the first piston and the fluid cylinder, the inner piston defines a flow passage (62) for communicating fluid between the inlet and outlet ends, and a valve member (66) is disposed in the flow passage. Cooney does not teach that the apparatus includes at least one aperture defined by one of the fluid cylinder and the first outer annular wall.

Jansson teaches a brake pressure intensifying apparatus having a fluid cylinder (1), and a piston assembly (21, 32) wherein the fluid cylinder includes a first end wall (9), being a plug, defining an aperture (not numbered) for allowing fluid to flow into the piston assembly.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the fluid cylinder of Cooney to include an aperture defined in the first end wall as taught by Jansson for the purpose of allowing fluid to flow into the piston assembly.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cooney in view of Desai et al.

Cooney teaches a braking system having a brake (not numbered), a master cylinder (30) for supplying fluid to the brake, a hydraulic fluid line (34) for channeling the fluid, and a brake pressure intensifying apparatus (10) having a fluid cylinder (40) axially extending between an inlet end (44) and an outlet end (46), and a piston assembly (52) disposed in the fluid cylinder for

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regulating fluid flow between the inlet end and the outlet end and including a first piston (54) having a first forward end (not numbered) adjacent the inlet end and a first outer annular wall (not numbered) extending from the first forward end. Cooney does not teach that the apparatus includes an aperture defined by one of the fluid cylinder and the first outer annular wall.

Desai et al teach a piston (161) having an outer annular wall (164) defining a plurality of apertures (168) equally spaced along the wall for allowing better fluid flow to the central portion of the piston and to prevent the piston from sticking to its stop surface or cylinder end wall.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the outer annular wall of Cooney to include an aperture as taught by Desai et al for the purpose of improving fluid flow and reducing the tendency of the piston to stick to the end wall.

Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooney in view of Jansson.

Cooney teaches a braking system having a brake (not numbered), a master cylinder (30) for supplying fluid to the brake, a hydraulic fluid line (34) for channeling the fluid, and a brake pressure intensifying apparatus (10) having a fluid cylinder (40) axially extending between an inlet end (44) and an outlet end (46), and a piston assembly (52) disposed in the fluid cylinder for regulating fluid flow between the inlet end and the outlet end and including a first piston (54) having a first forward end (not numbered) adjacent the inlet end and a first outer annular wall (not numbered) extending from the first forward end. Cooney does not teach that the apparatus includes an aperture defined by one of the fluid cylinder and the first outer annular wall.

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Jansson teaches a brake pressure intensifying apparatus having a fluid cylinder (1), and a piston assembly (21, 32) wherein the fluid cylinder includes a first end wall (9) defining an aperture (not numbered) for allowing fluid to flow into the piston assembly.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the fluid cylinder of Cooney to include an aperture defined in the first end wall as taught by Jansson for the purpose of allowing fluid to flow into the piston assembly.

Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooney in view of Desai et al as applied to claim 18 above, and further in view of Yanagi et al (5349820).

Cooney as modified above with respect to claim 18, teaches a braking system including a master cylinder wherein the brake includes a front brake which receives fluid from the hydraulic fluid line, but does not teach that the master cylinder is a split master cylinder.

Yanagi et al teach a split master cylinder having a first chamber (3 left in Fig. 1) and a second chamber (3 right in Fig. 1), and a first split cylinder piston (2 left in Fig. 1) for compressing fluid in the first chamber.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the master cylinder of Cooney as modified by using a split master cylinder as taught by Yanagi et al for the purpose of having a dual circuit system to improve safety in the event of failure of one of the circuits.

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Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooney in view of Jansson as applied to claim 18 above, and further in view of Yanagi et al (5349820).

Cooney as modified above with respect to claim 18, teaches a braking system including a master cylinder wherein the brake includes a front brake which receives fluid from the hydraulic fluid line, but does not teach that the master cylinder is a split master cylinder.

Yanagi et al teach a split master cylinder having a first chamber (3 left in Fig. 1) and a second chamber (3 right in Fig. 1), and a first split cylinder piston (2 left in Fig. 1) for compressing fluid in the first chamber.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the master cylinder of Cooney as modified by using a split master cylinder as taught by Yanagi et al for the purpose of having a dual circuit system to improve safety in the event of failure of one of the circuits.

Allowable Subject Matter

Claims 7, 10, 13, 14, 21, 25, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents 3425222 and 2734342 disclose brake pressure intensifiers having flow apertures.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Leslie whose telephone number is (571) 272-4819. The examiner can normally be reached on M-F 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML
May 12, 2005


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5/13/05